

ABSTRACT OF THE DISCLOSURE

This invention relates to a A process for manufacturing a refractory material, a protective coating, and uses of this process and this coating thereof. The process comprises includes the following steps: a) deposit depositing on the surface of a substrate or in a mould a first dispersion containing at least one metallic compound chosen from among borides, carbides and borocarbides containing at least one transition metal, in powder form, and a resin with a coke mass content equal to at least 30% after carbonization; b) [[dry]] drying the resulting deposit; c) cross-link cross-linking the resin; d) carbonize carbonizing the resin under an inert atmosphere; e) cover covering the deposit with a second dispersion containing Si in powder form and a binder; and f) heat heating the deposit to a temperature greater than or equal to the melting temperature of Si, under an inert atmosphere.

Applications: manufacture of propulsion parts and fuselage and wing elements for aerospace and aeronautical applications; manufacture of heat exchangers for thermal power stations; metallurgy; chemical industry; etc.